

## ABSTRACT OF THE DISCLOSURE

A bag, method of manufacture and process are disclosed for the cryopreservation of thermolabile substances. The bag is characterized as having substantially uniform thickness throughout its length and height. The bag features a radiused peripheral edge wall for stress relief and to provide the constant cross-section. A peripheral flashing circumscribes the radiused edge wall and provides a suitable purchase area for sealing so that the thus formed bag is less susceptible to fracture particularly when exposed to cryogenic temperatures. The uniform thickness of the bag promulgates uniform heat transfer to and from the contents of the bag in relation to any surrounding medium at a different temperature. The bag affords more space for efficient storage and reduces heat invasion into the contents of the bag when a plurality of bags are placed with their larger planar surfaces in contact with each other.